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<110> Expression Technologies Inc.

<120> De novo synthesized plasmid, methods of making and use thereof

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<170> PatentIn version 3.1

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De novo synthesized plasmid, methods of making and use thereof

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agggtttatt gagaatatgt ttttcgtctc agccaatccc tgggtgagtt tcaccagttt  
1800

tgatttaaac gtggccaata tggacaactt cttcgcccc gttttcacca tgggcaaata  
1860

ttatacgcaa ggcgacaagg tgctgatgcc gctggcgatt caggttcatc atgccgtctg  
1920

tgatggcttc catgtcggca gaatgcttaa tgaattacaa cagtactgcg atgagtggca  
1980

ggcgggggcg taattttttt aaggcagtta ttggtgccct taaacgcctg gtgctacgcc  
2040

tgaataagtg ataataagcg gatgaatggc agaaattcga aagcaaattc gacccggtcg  
2100

tcggttcagg gcagggtcgt taaatagccg cttatgtcta ttgctggttt accggtttat  
2160

tgactaccgg aagcagtgtg accgtgtgct t  
2191

<210> 36

<211> 1992

<212> DNA

<213> artificial sequence

<220>

<223> A de novo synthesized plasmid

<400> 36

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120

gtggtttggt tgccggatca agagctacca actctttttc cgaaggtaac tggcttcagc  
180

agagcgcaga taccaaatac tgccttcta gtgtagccgt agttaggcca ccacttcaag  
240

aactctgtag caccgcctac atacctcgct ctgctaatec tgttaccagt ggctgctgcc  
300

agtggcgata agtcgtgtct taccgggttg gactcaagac gatagttacc ggataaggcg  
360

cagcggtcgg gctgaacggg gggttcgtgc acacagccca gcttggagcg aacgacctac  
420

accgaactga gataacctaca gcgtgagcta tgagaaagcg ccacgcttcc cgaagggaga  
480

aaggcggaca ggtatccggt aagcggcagg gtcggaacag gagagcgcac gagggagctt  
540

ccagggggaa acgcctggta tctttatagt cctgtcgggt ttcgccacct ctgacttgag  
600

cgtcgatttt tgtgatgctc gtcagggggg cggagcctat ggaaaaacgc cagcaacgcg  
660

gcctttttac ggttcctggc cttttgctgg ccttttgctc acatgttctt tcctgcgtta  
720

tcccctgatt ctgtggataa ccgtattacc gcctttgagt gagctgatac cgctcgccgc  
780

agccgaacga ccgagcgcag cgagtcagtg agcgaggaag cggaaggcgg ggcgcccggg  
840

cggcggggcga agccactgga gcacctcaaa aacaccatca tacactaaat cagtaagttg  
900

gcagcatcac ccgacgcact ttgcgccgaa taaatacctg tgacggaaga tcacttcgca  
960

gaataaataa atcctggtgt ccctgttgat accgggaagc cctgggccaa cttttggcga  
1020

aatgagacg ttgatcggca cgtaagaggt tccaactttc accataatga aataagatca  
1080

ctaccgggcg tattttttga gttatcgaga ttttcaggag ctaaggaagc taaaatggag  
1140

aaaaaaatca ctggatatac caccgttgat atatcccaat ggcatcgtaa agaacatttt  
1200

gaggcatttc agtcagttgc tcaatgtacc tataaccaga ccgttcagct ggatattacg  
1260

gcctttttta agaccgtaaa gaaaaataag cacaagtttt atccggcctt tattcacatt  
1320

cttgcccgcc tgatgaatgc tcatccggaa ttccgtatgg caatgaaaga cggtgagctg  
1380

gtgatatggg atagtgttca cccttgttac accgttttcc atgagcaaac tgaaacgttt  
1440

tcatcgctct ggagtgaata ccacgacgat ttccggcagt ttctacacat atattcgcaa  
1500

gatgtggcgt gttacgggtga aaacctggcc tatttcccta aagggtttat tgagaatatg  
1560

tttttcgtct cagccaatcc ctgggtgagt ttcaccagtt ttgatttaaa cgtggccaat

De novo synthesized plasmid, methods of making and use thereof

1620

atggacaact tcttcgcccc cgttttcacc atgggcaaatt attatacgca aggcgacaag  
1680

gtgctgatgc cgctggcgat tcaggttcat catgccgtct gtgatggctt ccatgtcggc  
1740

agaatgctta atgaattaca acagtactgc gatgagtggc agggcggggc gtaatttttt  
1800

taaggcagtt attggtgccc ttaaaccgct ggtgctacgc ctgaataagt gataataagc  
1860

ggatgaatgg cagaaattcg aaagcaaatt cgacccggtc gtcggttcag ggcagggctc  
1920

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1980

gaccgtgtgc tt  
1992

<210> 37

<211> 1906

<212> DNA

<213> artificial sequence

<220>

<223> A de novo synthesized plasmid

<400> 37

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120

tcgaaggctc tctgagctac caactctttg aaccgaggta actggcttgg aggagcgcag  
180

tcaccaaacc ttgtcctttc agtttagcct taaccggcgc atgacttcaa gactaactcc

240

tctaaatcaa ttaccagtgg ctgctgccag tgggtgctttt gcatgtcttt ccgggttgga  
300

ctcaagacga tagttaccgg ataaggcgca gcggtcggac tgaacggggg gttcgtgcat  
360

acagtccagc ttggagcgaa ctgcctaccc ggaactgagt gtcaggcgtg gaatgagaca  
420

aacgcggcca taacagcgga atgacaccgg taaaccgaaa ggcaggaaca ggagagcgca  
480

cgaggagacc gccaggggga aacgcctggt atctttatag tctgtcggg tttcgccacc  
540

actgatttga gcgtcagatt tcgtgatgct tgtcaggggg gcggagccta tggaaaaacg  
600

gctttgccgc ggccctctca cttccctggt aagtatcttc ctggcatctt ccaggaaatc  
660

tccgccccgt tcgtaagcca tttccgctcg ccgcagtcga acgaccgagc gtagcgagtc  
720

agtgagcgag gaagcggaag gcggggcgcc cgggcggcgg gcgaagccac tggagcacct  
780

caaaaacacc atcatacact aatcagtaa gttggcagca tcacccgacg cactttgcgc  
840

cgaataaata cctgtgacgg aagatcactt cgcagaataa ataaatcctg gtgtccctgt  
900

tgataccggg aagccctggg ccaacttttg gcgaaaatga gacgttgatc ggcacgtaag  
960

aggttccaac tttcaccata atgaaataag atcactaccg ggcgtatttt ttgagttatc  
1020

gagattttca ggagctaagg aagctaaaat ggagaaaaaa atcactggat ataccaccgt  
1080



tgatatatcc caatggcatc gtaaagaaca ttttgaggca tttcagtcag ttgctcaatg  
1140

tacctataac cagaccgttc agctggatat tacggccttt ttaaagaccg taaagaaaaa  
1200

taagcacaag ttttatccgg cttttattca cattcttgcc cgctgatga atgctcatcc  
1260

ggaattccgt atggcaatga aagacggtga gctggtgata tgggatagtg ttcacccttg  
1320

ttacaccggt ttccatgagc aaactgaaac gttttcatcg ctctggagtg aataccacga  
1380

cgatttccgg cagtttctac acatatattc gcaagatgtg gcgtgttacg gtgaaaacct  
1440

ggcctatttc cctaaagggt ttattgagaa tatgtttttc gtctcagcca atccctgggt  
1500

gagtttcacc agttttgatt taaacgtggc caatatggac aacttcttcg cccccgtttt  
1560

caccatgggc aaatattata cgcaaggcga caaggtgctg atgccgctgg cgattcaggt  
1620

tcacatgcc gtctgtgatg gcttccatgt cggcagaatg cttaatgaat tacaacagta  
1680

ctgcgatgag tggcagggcg gggcgtaatt tttttaaggc agttattggt gcccttaaac  
1740

gcctggtgct acgcctgaat aagtgataat aagcggatga atggcagaaa ttcgaaagca  
1800

aattcgaccc ggtcgtcgggt tcagggcagg gtcgttaaata agccgcttat gtctattgct  
1860

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<210> 38

<211> 2600

<212> DNA

<213> artificial sequence

<220>

<223> A de novo synthesized plasmid

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tcgaagggttc tctgagctac caactctttg aaccgaggta actggcttgg aggagcgcag  
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240

tctaaatcaa ttaccagtgg ctgctgccag tgggtgctttt gcatgtcttt ccgggttgga  
300

ctcaagacga tagttaccgg ataaggcgca gcggtcggac tgaacggggg gttcgtgcat  
360

acagtccagc ttggagcgaa ctgcctaccc ggaactgagt gtcaggcgtg gaatgagaca  
420

aacgcggcca taacagcgga atgacaccgg taaaccgaaa ggcaggaaca ggagagcgca  
480

cgagggagcc gccaggggga aacgcctggt atctttatag tcctgtcggg ttctgccacc  
540

actgatttga gcgtcagatt tcgtgatgct tgtcaggggg gcggagccta tggaaaaacg  
600

gctttgccgc ggccctctca ctteccctgtt aagtatcttc ctggcatctt ccaggaaatc  
660

tccgccccgt tcgtaagcca tttccgctcg ccgcagtcga acgaccgagc gtagcgagtc  
720

agtgagcgag gaagcggaat atatacctgta tcacatatcc tgctgacgca ccggtgcagc  
780

ctttttttctc ctgccacatg aagcacttca ctgacaccct catcagtgcc aacatagtaa  
840

gccagtatac actccgctag cgctgaggtc tgcctcgtga agaaggtggt gctgactcat  
900

accaggcctg aatcgcccca tcatccagcc agaaagtgag ggagccacgg ttgatgagag  
960

ctttgttgta ggtggaccag ttggtgattt tgaacttttg ctttgccacg gaacggtctg  
1020

cgttggcggg gcgcccgggc ggcgggcggt ctcattgttg acagcttacc atcgataagc  
1080

tttaatgcgg tagtttatca cagttaaatt gctaacgcag tcaggcaccg tgtatgaaat  
1140

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1200

tggttatgcc ggtactgccg ggcctcttgc gggatatcgt ccattccgac agcatcgcca  
1260

gtcactatgg cgtgctgcta gcgctatatg cgttgatgca atttctatgc gcaccggttc  
1320

tcggagcact gtccgaccgc tttggccgcc gccagtcct gctcgcttcg ctacttggag  
1380

ccactatcga ctacgcgac atggcgacca caccgctcct gtggatcctc tacgccggac  
1440

gcacgtggc cggcatcacc ggcgccacag gtgcggttgc tggcgcttat atcgccgaca  
1500

tcaccgatgg ggaagatcgg gctcgccact tcgggctcat gacgccttgt ttcggcggtg

1560

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tccttgcggc ggcggtgctc aacggcctca acctactact gggctgcttc ctaatgcagg  
1680

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aactcgtagg acaggtgccg gcagcgctct gggtcatttt cggcgaggac cgctttcgct  
1860

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1920

aagccttcgt cactggtccc gccaccaaac gtttcggcga gaagcaggcc attatcgccg  
1980

gcatggcggc cgacgcgctg ggctacgtct tgctggcggt cgcgacgcga ggctggatgg  
2040

ccttccccat tatgattctt ctcgcttcg gcggcatcgg gatgcccgcg ttgcaggcca  
2100

tgctgtccag gcaggtagat gacgaccatc agggacagct tcaaggatcg ctcgcggtc  
2160

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2220

cgagcacatg gaacggggtg gcatggattg taggcgccgc cctatacctt gtctgcctcc  
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gaatgcgcaa accaaccctt ggcagaacat atccatcgcg tccgccatct ccagcagccg  
2460

cacgcggcgc atctcgggca gcgttgggtc ctggccacgg gtgcgcatga tcgtgctcct  
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<210> 39

<211> 2315

<212> DNA

<213> artifialcial sequence

<400> 39

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120

tcgaaggttc tctgagctac caactctttg aaccgaggta actggcttgg aggagcgcag  
180

tcaccaaaac ttgtcctttc agtttagcct taaccggcgc atgacttcaa gactaactcc  
240

tctaaatcaa ttaccagtgg ctgctgccag tgggtgctttt gcatgtcttt ccgggttggg  
300

ctcaagacga tagttaccgg ataaggcgca gcggtcggac tgaacggggg gttcgtgcat  
360

acagtccagc ttggagcgaa ctgcctaccc ggaactgagt gtcaggcgtg gaatgagaca  
420

aacgcggcca taacagcgga atgacaccgg taaaccgaaa ggcaggaaca ggagagcgca  
480

cgagggagcc gccaggggga aacgcctggt atctttatag tcctgtcggg tttcgccacc  
540

actgatttga gcgtcagatt tcgtgatgct tgtcaggggg gcggagccta tggaaaaacg  
600

gctttgccgc ggccctctca cttccctggt aagtatcttc ctggcatctt ccaggaaatc  
660

tccgccccgt tcgtaagcca tttccgctcg ccgcagtcga acgaccgagc gtagcgagtc  
720

agtgagcgag gaagcggaag gcggggcgcc cgggcggcgg gcgttctcat gtttgacagc  
780

ttatcatcga taagctttaa tgcggtagtt tatcacagtt aaattgctaa cgcagtcagg  
840

caccgtgtat gaaatctaac aatgcgctca tcgtcatcct cggcaccgtc accctggatg  
900

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960

ccgacagcat cgccagtcac tatggcgtgc tgctagcgct atatgcgttg atgcaatttc  
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tatgcgcacc cgttctcgga gcaactgtccg accgctttgg ccgccgcca gtctgtctcg  
1080

cttcgctact tggagccact atcgactacg cgatcatggc gaccacaccc gtctgtgga  
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1200

cctatatcgc cgacatcacc gatggggaag atcgggctcg ccacttcggg ctcagtagcg  
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1320

ccttgcatgc accattcctt gcggcggcgg tgctcaacgg cctcaaccta ctactgggct  
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accagtcag ctccctccgg tgggcgcggg gcatgactat cgtcgccgca cttatgactg  
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tcttctttat catgcaactc gtaggacagg tgccggcagc gctctgggtc attttcggcg  
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1860

gatcgctcgc ggctcttacc agcctaactt cgatcactgg accgctgate gtcacggcga  
1920

tttatgccgc ctccggcagc acatggaacg gggtggcatg gattgtaggc gccgccctat  
1980

accttgtctg cctccccgcg ttgcgtcgcg gtgcatggag ccggggccacc tcgacctgaa  
2040

tggaagccgg cggcacctcg ctaacggatt caccactcca agaattggag ccaatcaatt  
2100

cttgccgaga actgtgaatg cgcaaacc aa ccttggcag aacatatcca tcgcgtccgc  
2160

catctccagc agccgcacgc ggcgcacttc gggcagcgtt gggtcctggc cacgggtgcg

2220

catgatcgtg ctctgtcgt tgaggaccg gctaggctgg cggggttgcc ttactggta  
2280

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<210> 40

<211> 2267

<212> DNA

<213> artificial sequence

<220>

<223> A de novo synthesized plasmid

<400> 40

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120

tcgaagggttc tctgagctac caactctttg aaccgaggta actggcttgg aggagcgcag  
180

tcaccaaaac ttgtcctttc agtttagcct taaccggcgc atgacttcaa gactaactcc  
240

tctaaatcaa ttaccagtgg ctgctgccag tgggtgctttt gcatgtcttt ccggggttga  
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ctcaagacga tagttaccgg ataaggcgca gcggtcggac tgaacggggg gttcgtgcat  
360

acagtccagc ttggagcgaa ctgcctaccc ggaactgagt gtcaggcgtg gaatgagaca  
420

aacgcggcca taacagcgga atgacaccgg taaaccgaaa ggcaggaaca ggagagcgca  
480

cgagggagcc gccaggggga aacgcctggt atctttatag tcctgtcggg tttcgccacc



540

actgatttga gcgtcagatt tcgtgatgct tgtcaggggg gcggagccta tggaaaaacg  
600

gctttgccgc ggccctctca cttccctgtt aagtatcttc ctggcatctt ccaggaaatc  
660

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780

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900

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960

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1080

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1140

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1200

taatacaagg ggtgttatga gccatattca acgggaaacg tcttgctcga ggccgcgatt  
1260

aaattccaac atggatgctg atttatatgg gtataaatgg gctcgcgata atgtcgggca  
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1380

acatggcaaa ggtagcgttg ccaatgatgt tacagatgag atggtcagac taaactggct  
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1620

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1680

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1740

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1800

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1860

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1920

cctcggtgag ttttctcctt cattacagaa acggcttttt caaaaatatg gtattgataa  
1980

tcctgatatg aataaattgc agtttcattt gatgctcgat gagtttttct aatcagaatt  
2040

ggttaattgg ttgtaacact ggcagagcat tacgctgact tgacgggacg gcggctttgt  
2100

tgaataaatc gaacttttgc tgagttgaag gatcagatca cgcattcttc cgacaacgca  
2160

gaccgttccg tggcaaagca aaagttcaaa atcaccaact ggtccaccta caacaaagct  
2220

ctcatcaacc gtggctccct cactttctgg ctggatgatg gggcgat  
2267

<210> 41

<211> 1982

<212> DNA

<213> artificial sequence

<220>

<223> A de novo synthesized plasmid

<400> 41

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120

tcgaagggttc tctgagctac caactctttg aaccgaggta actggcttgg aggagcgcag  
180

tcaccaaaaac ttgtcctttc agtttagcct taaccggcgc atgacttcaa gactaactcc  
240

tctaaatcaa ttaccagtgg ctgctgccag tgggtgctttt gcatgtcttt ccgggttgga  
300

ctcaagacga tagttaccgg ataaggcgca gcggtcggac tgaacggggg gttcgtgcat  
360

acagtccagc ttggagcgaa ctgcctaccc ggaactgagt gtcaggcgtg gaatgagaca  
420

aacgcggcca taacagcgga atgacaccgg taaaccgaaa ggcaggaaca ggagagcgca  
480

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1980

at  
1982